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D206-667-107BL
Job Sheet 186174



Part No: D206-667-107BL

Job Qty: 1 ea

Part Name: Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/12/18

Job Tracking No:

Due Date: 12/14/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG D206-667-147 REV.B/ IIN-D206-667 REV.D IPP REV:A 12.08.20 DSI9628 revA (ECN12-631) DD
VERF:JLM IPP REV:B 18.09.13 AS PER DWG REV.B DD VERF:JFS

Ship Via:

7/22

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/14/18	0.00	0.00	Start Up Stores/Pkg-1		GP 2018-11-20
110	Packaging	1 pcs		12/14/18	0.00	0.00	Packaging1-2		GP 2018-11-20
120	CNC Bend Crosstubes	1 pcs		12/14/18	0.00	4.32	CNC Bend Crosstube		GP 2018-11-20
130	QC	1 pcs		12/14/18	0.00	0.00	QC15		38
140	Crosstubes	1 pcs		12/14/18	0.00	2.87	Crosstubes-1		GP 2018-11-27
150	HandFXtube	1 pcs		12/14/18	0.00	0.74	HandFinish5		GP 2018-11-27
160	QC	1 pcs		12/14/18	0.00	0.00	QC7-1		38 DAS
170	QC	1 pcs		12/14/18	0.00	0.00	QC5		9-88 38
180	Outsource	1 pcs		12/14/18			SKY002-VC		DEC 18-11-30
190	Packaging	1 pcs		12/14/18	0.00	0.00	Packaging2		DEC 11 2018
200	QC	1 pcs		12/14/18	0.00	0.00	QC5		38
210	Outsource	1 pcs		12/14/18			ATE003-VC		U/R
215	Packaging 205 spray	1 pcs	Paint	12/14/18	0.00	0.00	Packaging2-Spray Paint		AR 18-12-3
220	QC	1 pcs		12/14/18	0.00	0.00	QC14		
230	Crosstubes	1 pcs		12/14/18	0.00	2.87	Crosstubes-1		AR 18-12-7
240	QC	1 pcs		12/14/18	0.00	0.00	QC5		38
250	Packaging	1 pcs		12/14/18	0.00	0.00	Packaging1-2		DAS 9-88 2
260	QC	1 pcs		12/14/18	0.00	0.00	QC4		DEC 18 2018 9-88 2
270	Packaging	1 pcs		12/14/18	0.00	0.00	Packaging3-1		9-88 46 DEC 19 2018
275	DC	1 pcs		12/14/18	0.00	0.00	DC		9-88 38 DEC 19 2018
280	QC21-FG	1 Ea		12/14/18	0.00	0.00	QC21		9-88 21 DAS DEC 19 2018

Part Op 120 - Bend tube as per Dwg D206-667-147 using CNC bender program

Descriptions: 140 - ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: _____

holes & ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-147. Drill all (3) top holes. Holes facing inboard.

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: _____

***** 2- Drill Fwd rivet holes using drill Jig DT8787 fwd as per Dwg D206-667-147. Note: Fwd side has 3x top holes.Facing inboard. 3- C'sink holes as per Dwg D206-667-147. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch

drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins .Drill ONLY 2 top holes ONLY plug most bottom holes to prevent accidental drilling. Drill holes and ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-147. Drill only the top (2) holes. ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: _____

***** 5- Drill Aft rivet holes using drill Jig

150 - ***IMMEDIATELY AFTER GRINDING*** 1- PRESSURE WASH X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.

180 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

 Container No: S127962 Part: D206-667-107BL Job No: 186174 Serial No/Batch: S127962 Revision: B/D Inspector: Exp Date: Instructions: TC STC SH01-5 Issue 3 of 5, STA SR01304NY 05/12/15, JCAB JAI		AGAINST DEPARTMENT/PROCESS			
		Cross tube ☐	Water Jet ☐	Engineering ☐	
		Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
		Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
		Composite ☐		Supplier ☐	
Disposition				MRB (QSI042) Approval	
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐						
Misidentified ☐	Past Due ☐	OTHER : _____					

Issue P/O: 241803 LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order

190 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Ensure copy of NDT results attached to work order.

200 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

210 - ISSUE PO _____ *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** **VERIFY BY _____
BATCH # TO MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH
W/O _____ **MASK SCRIBE B# & P# AND VERIFY*** 1-Prime inside and outside crosstube as per

QSI 005 4.2 2-Paint outside crosstube as per QSI 005 4.2 PRIME: Start Time: _____ Finish Time: Prime 5135773
PAINT: DELFLEET BLUE 138785 Start Time: _____ Finish Time: _____ CLEAR DELFLEET B 130712

220 - Wrap in plastic bag to protect from scratches **VERIFY BY _____ BATCH # TO MATCH W/O
_____ **VERIFY BY _____ PART # TO MATCH W/O _____

230 - INSTALL GROUNDING CLAMP AND SEAL WITH SIKAFLEX AS PER DWG A/R SIKAFLEX

BATCH: _____ 1-Abraze mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports with Proseal 890 per D206-667-147 and QSI 015 A/R Proseal 890
Batch: 5138976 EXP: 6/19 3-Install supports clamps Using Dt9565 as per Dwg D206-667-147 ,Torque to 80-100 IN-LBS. PROSEAL CURE TIME 72 HOURS: Start: 18-12-7
Finish: 18-12-10 4-Install nut plates as per Dwg D206-667-147. Touch-up rivet heads with Imron paint. 5-Install grounding strap as per dwg (D206-667-017)

240 - QC5- Inspect part completeness to step on W/O ***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.*** **VERIFY RESISTANCE AS PER NOTE 18 AND DWG*** **VERIFY BY _____ BATCH # TO MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH W/O _____ **MASK SCRIBE B# & P# AND VERIFY***

260 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH W/O _____

270 - Identify and pack for shipping as per PPP D206-667-107 Location: FG035

275 - Photocopy bluefile and create labels as per PPP D206-667-107 chg 003

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D206-667-147TRN	Crosstube Assembly, Mid Fwd	1 Ea (1 ea)	90-Start up Operation	<u>B 167821-F</u>
D206-667-017	Grounding Strap	1 Ea (1 ea)	230-Crosstubes	
D2873-043	Nut Plate Assembly	2 Ea (2 ea)	230-Crosstubes	
D2873-045	Nut Plate Assembly	2 Ea (2 ea)	230-Crosstubes	
D2891-1	Support 2.25	2 Ea (2 ea)	230-Crosstubes	
D3595-063-395	Rubber Cushion 0.63" Wide X 3.95" Long	4 Ea (4 ea)	230-Crosstubes	
MS20601-AD4W8	Rivet	14 Ea (14 ea)	230-Crosstubes	
MS21920-20	Clamp	4 Ea (4 ea)	230-Crosstubes	
AN742D36	Plain Clamp Loop	2 Ea (2 ea)	230-Crosstubes	
MS21042-3	Nut	2 Ea (2 ea)	230-Crosstubes	
MS27039-1-08	Screw	2 Ea (2 ea)	230-Crosstubes	
MS9165-05	Bracket	2 Ea (2 ea)	230-Crosstubes	
NAS1149C0332R	Washer	4 Ea (4 ea)	230-Crosstubes	
AN5-30A	Bolt	4 Ea (4 ea)	250-Packaging	<u>5015691</u>
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging	<u>5058983</u>
AN5-7A	Bolt	10 Ea (10 ea)	250-Packaging	<u>5012335</u>
AN970-4	Washer	12 Ea (12 ea)	250-Packaging	<u>5016395</u>
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging	<u>5093572</u>
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging	<u>505003</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D206-667-147TRN	1	6	0
230-Crosstubes	AN742D36	2	30	0
	D206-667-017 <u>5049001</u>	①	8	0
	D2873-043 <u>5090584</u>	②	33	0
	D2873-045 <u>5125817</u>	②	21	0
	D2891-1 <u>5081235</u>	②	5	0
	D3595-063-395 <u>5033983</u>	④	120	0
	MS20601-AD4W8 <u>5066964</u>	⑭	254	0
	MS21042-3	2	214	0
	MS21920-20 <u>5034404</u> ③	④ <u>5034478</u> ①	176	0
	MS27039-1-08	2	380	0
	MS9165-05	2	11	0
	NAS1149C0332R	4	3,229	0
250-Packaging	AN5-30A	4	71	0
	AN5-32A	4	525	0
	AN5-7A	10	2,487	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER :					

AN970-4	12	142	0
MS21042L5	4	455	0
NAS1149D0563J	18	1,372	0

Part Specifications

Specifications could not be found.

Plex 11/12/18 12:56 PM Dart.lajeunesse.marie

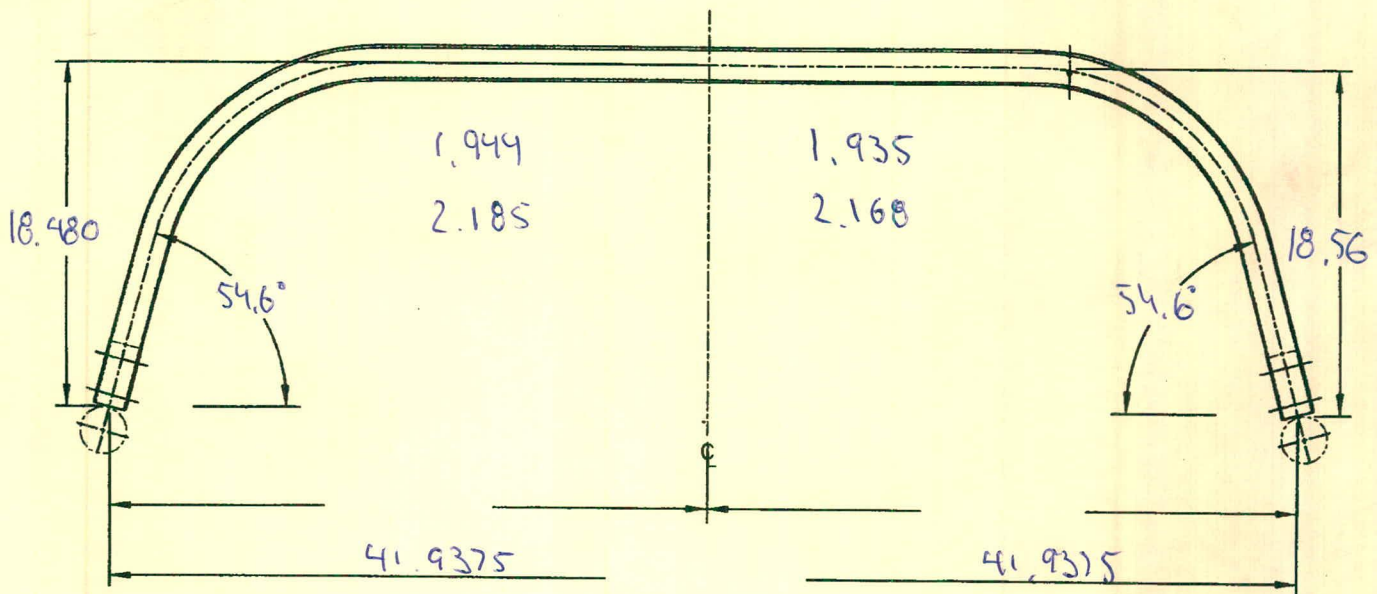


Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition			Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

DART AEROSPACE LTD		Work Order:	186174
Description: Crosstube Mid Fwd (206L)		Part Number:	D206-667-107
Inspection Dwg: D206-667-147 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	18.34	18.60
1/2 Span	41.79	42.05
Angle	54°	56°
Total Span	83.59	84.09
Bending Passes	10	--
Crushing	--	6%



	Side A	Side B
Bending Passes	14	16
Crushing	5.8%	5.7%
Comments		

QC15 Inspection	23
Date	18-11-20

Rev	Date	Change	Revised by	Approved
A	12.02.15	New Issue	KJ	
B	12.04.16	Added bending, crushing dimensions	KJ	

Item	Qty -147	Part Number	Description
1	X	D206-667-147	CROSSTUBE ASSEMBLY (206L MID FWD)
2	1	D6002-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	PROSEAL	SEALANT, AMS-S-8802 CLASS B-2
10	2	AN742D36	CLAMP
11	2	MS9165-05	ANGLE BRACKET
12	2	MS21042L3	NUT (OR MS21042-3)
13	2	MS27039-1-08	SCREW
14	4	NAS1149C0332R	WASHER (OR AN960C10L)

GENERAL NOTES:

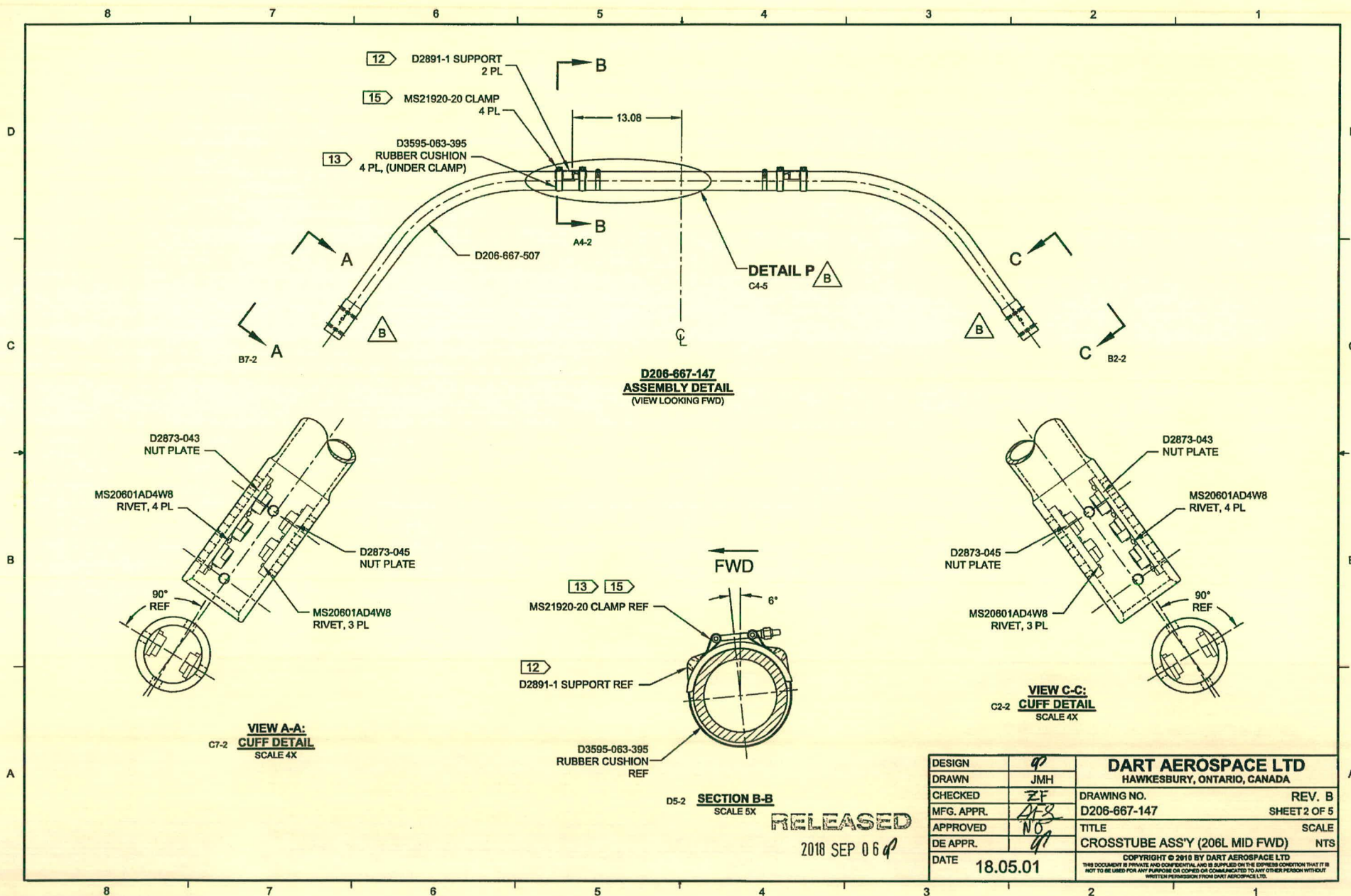
- MATERIAL: MANUFACTURED FROM D6002-115
FINISHED LENGTH = 99.84±0.020
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-147" AND BATCH NUMBER ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- WEIGHT: 15.0 lbs (-507 = 12.84)
- PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- TO INSTALL D2891-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.
- MASK AREA UNDER CLAMP PRIOR TO PAINTING.
- SEAL EDGES WHERE AN742D36 CLAMP MEETS WITH THE CROSSTUBE USING SIKAFLEX-241/-291 OR MIL-S-8802 CLASS B2 OR PROSEAL 890 SEALANT.
- PERFORM RESISTANCE CHECK TO ENSURE MAX RESISTANCE IS 10 MEGOHMS.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 186174 MWS
1871-12

RELEASED

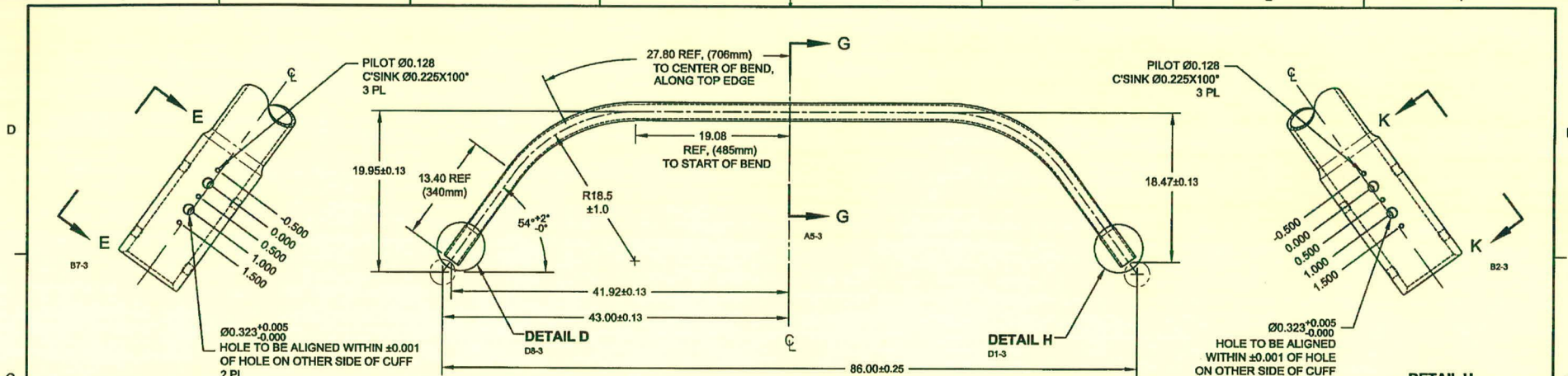
2018 SEP 06
RN 18-717

B	REVISE SHEET 2 ASSEMBLY DETAIL HOLE PATTERN PER CAR18-221. UPDATE PARTS LIST AND GENERAL NOTES 12 & 15 TO INCORPORATE DEO A-1. ADD ITEMS 10-14 TO PARTS LIST, ADD GENERAL NOTES 16-18 AND ADD SHEET 5 TO INCORPORATE DEO A-2.	JMH	18.05.01
A	NEW ISSUE	CP	10.11.23
REV.	DESCRIPTION	BY	DATE
DESIGN	9	DART AEROSPACE LTD	
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ZE	DRAWING NO.	REV. B
MFG. APPR.	273	D206-667-147	SHEET 1 OF 5
APPROVED	NO	TITLE	SCALE
DE APPR.	9	CROSSTUBE ASSY (206L MID FWD)	NTS
DATE	18.05.01	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



DESIGN	9P	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JMH	DRAWING NO.	REV. B
CHECKED	ZF	D206-667-147	SHEET 2 OF 5
MFG. APPR.	213	TITLE	SCALE
APPROVED	NO	CROSSTUBE ASS'Y (206L MID FWD)	NTS
DE APPR.	91	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	18.05.01		

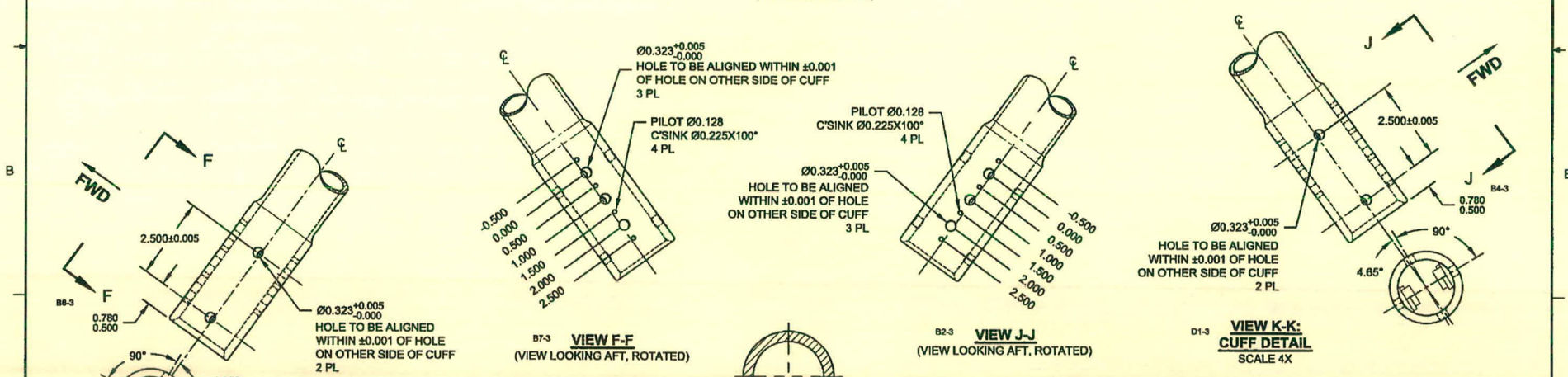
8 7 6 5 4 3 2 1



D8-3 **DETAIL D**
SCALE 4X
(VIEW LOOKING FWD)

10 **D206-667-507**
BENDING AND DRILLING DETAIL
(VIEW LOOKING FWD)

C3-3 **DETAIL H**
SCALE 4X
(VIEW LOOKING FWD)

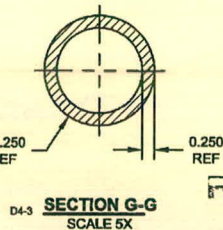


D8-3 **VIEW E-E:**
CUFF DETAIL
SCALE 4X

B7-3 **VIEW F-F**
(VIEW LOOKING AFT, ROTATED)

B2-3 **VIEW J-J**
(VIEW LOOKING AFT, ROTATED)

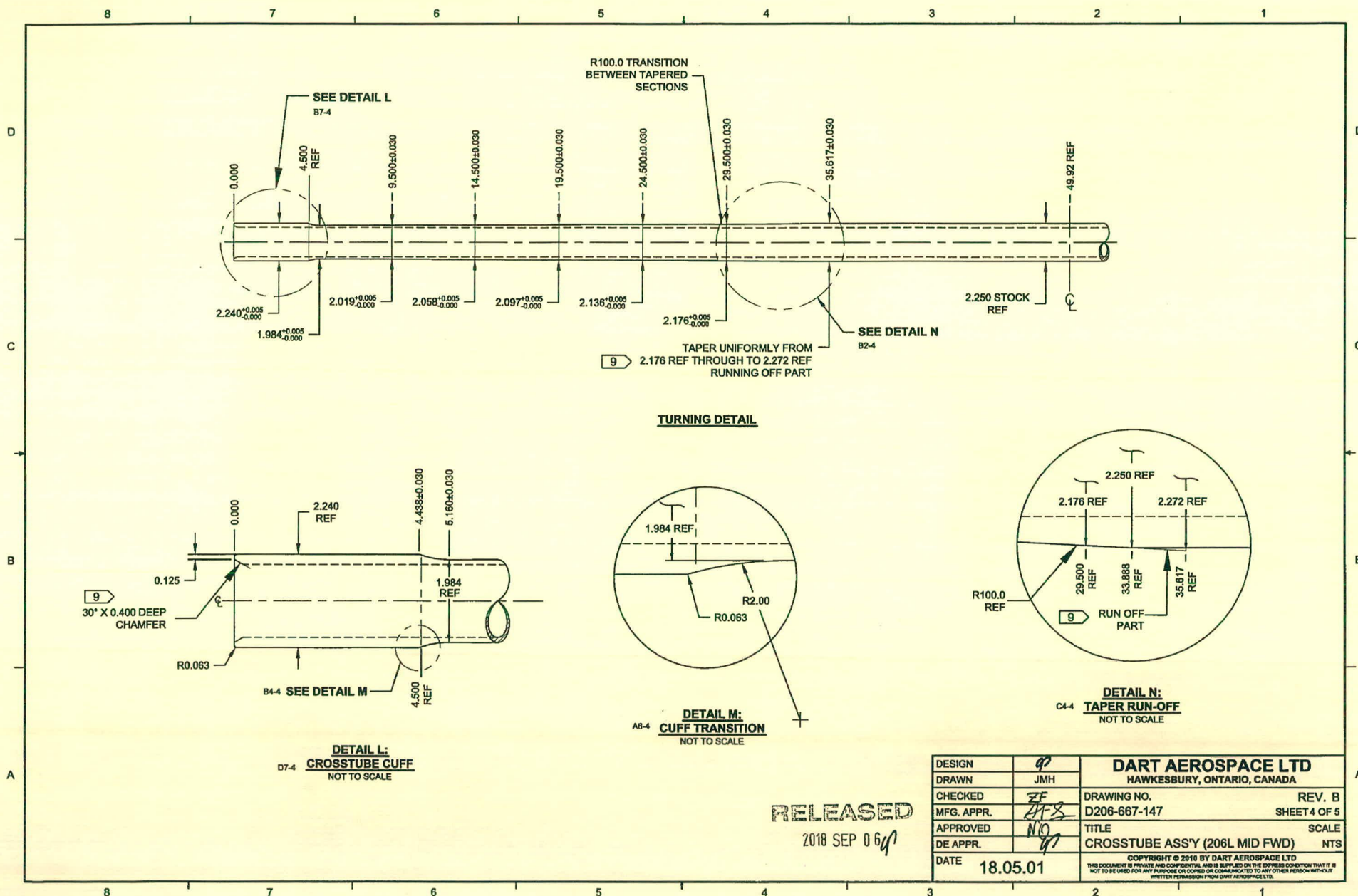
D1-3 **VIEW K-K:**
CUFF DETAIL
SCALE 4X



D4-3 **SECTION G-G**
SCALE 5X

RELEASED
2018 SEP 06

DESIGN	4P	DART AEROSPACE LTD	
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	AFS	D206-667-147	SHEET 3 OF 5
APPROVED	NO	TITLE	SCALE
DE APPR.	4P	CROSSTUBE ASS'Y (206L MID FWD)	NTS
DATE	18.05.01	COPYRIGHT © 2016 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

D

C

B

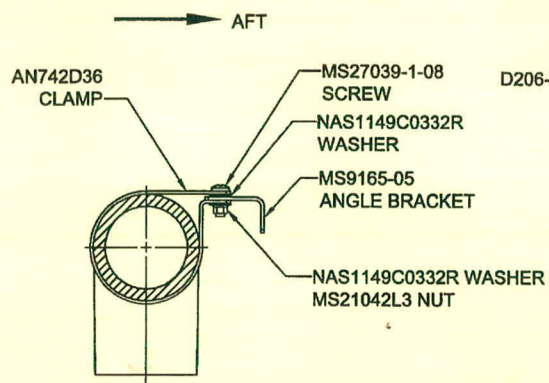
A

D

C

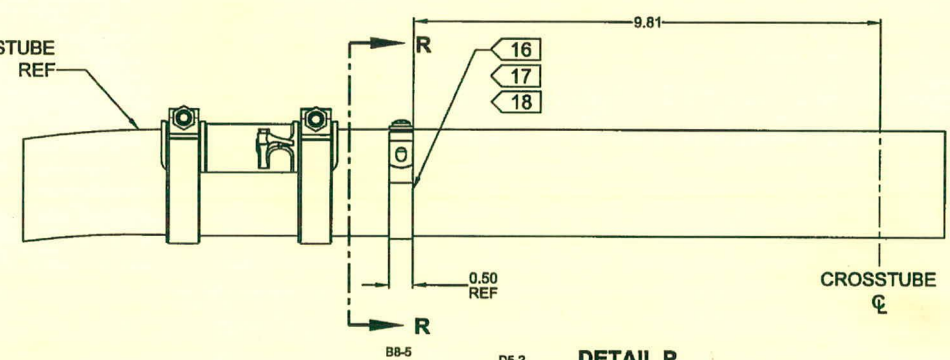
B

A



C4-5 **SECTION R-R**

D206-667-507 CROSSTUBE REF



D5-2 **DETAIL P**
 BONDING STRAP INSTALLATION 2 PL

RELEASED
 2018 SEP 06 *qp*

DESIGN	<i>qp</i>	DART AEROSPACE LTD	
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>ZF</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>DFS</i>	D206-667-147	SHEET 5 OF 5
APPROVED	<i>NO</i>	TITLE	SCALE
DE APPR.	<i>qp</i>	CROSSTUBE ASS'Y (206L MID FWD)	NTS
DATE	18.05.01	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041903**

Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO041903
PO Date: 11/29/18
Due Date: 12/4/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	185375	D212-664-101	Fwd Crosstube - High : TC STC SH01-9 Issue 3, FAA STC SR01298NY 09/01/08, EASA STC EASA.IM.R.S.01304 07/03/06, DGAC MEXICO STC IA- 316/2015 15/06/17 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038 LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	12/4/18	1 pcs	0 pcs	1 pcs	\$172.00/pcs	\$172.00
2	186178	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC- 32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	12/4/18	1 pcs	0 pcs	1 pcs	\$172.00/pcs	\$172.00
	186179			Firmed	-	12/4/18	1 pcs	0 pcs	1 pcs	\$172.00/pcs	\$172.00
Sub Total:							2	0	2		\$344.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

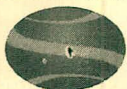
PURCHASE ORDER **PO041903**

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	186174	D206-667-107BL	Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	12/4/18	1 pcs	0 pcs	1 pcs	\$172.00/pcs	\$172.00
	186177			Firmed	-	12/4/18	1 pcs	0 pcs	1 pcs	\$172.00/pcs	\$172.00
Sub Total:							2	0	2		\$344.00
Grand Total:										\$860.00	

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/3/18 9:04 AM dart.tsimiklis.chrisoula

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

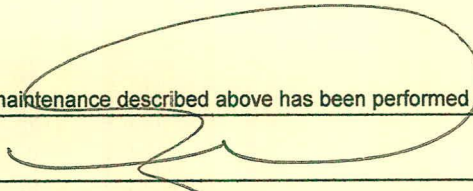
WO #: MWO38417	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO041903
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	

Task: UNSCHEDULED**Sequence: 1****Work Required:****CARRY OUT NDT ON:**

- ✓ 1 FWD CROSSTUBE , P/N# D212-664-101 , J/S# 185375
- ✓ 2 FWD CROSSTUBES , P/N# D206-667-107BL , J/S# 186174 , 186177
- ✓ 2 AFT CROSSTUBES , P/N# D206-667-207BL , J/S# 186178 , 186179

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-16						Nov 30 2018	  DAS 38 9-89
NO CRACK FOUND							
PEN. ZL-56, MPO13600, CLEANER SKC-S MPO13923 , DEV. MPO11715 , UV LIGHT M-20142							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp 	Date: NOV 30 2018
Name: RAFIK MELIKIAN		

